

GS6000 Headspace Analysers



New Design

Oxygen and carbon dioxide headspace measurement for modified atmosphere packaged (MAP) product

The new GS6000 headspace analysers represent the latest evolution, offering non-depleting technologies at an affordable price.



Applications

Fresh Meat	Beverage Products	Fresh, Prepared & Frozen Food Products
Snack Foods	Medical Device Packaging	Pharmaceutical Packaging

Features & Benefits

- Easy to set up and use
- AccuFlow transducer
- Intuitive menu
- One-Touch calibration
- Set tests for pass or fail
- External printer option via RS232
- Lightweight and easy to move around
- USB port for diagnostic software

The Gaspace 6000 range is comprised of three different models to accommodate your oxygen and carbon dioxide measurements.

GS6500 measures oxygen levels.



GS6600 measures oxygen and carbon dioxide concentrations.



GS6700 measures carbon dioxide.



Enclosure

The new more compact corrosion resistant enclosure minimizes the required foot print space on carts and table tops.

Systech Illinois is recognised worldwide for its line of precision trace oxygen and carbon dioxide analysers. The Gaspace 6000 headspace analysers offer high levels of performance technology and operator ease to fulfill the latest industry demands for accuracy and reliability.

These highly advanced instruments are equipped with integral sampling systems, unique, miniature, long-life, zirconia and infrared sensors, and microprocessor control to deliver the most accurate and repeatable performance possible.

The internal microprocessor manages calibration, autoranging, flow control, test duration and many other functions to ensure consistent, error-free results. One touch automated calibration and product analysis make these analysers easy to use. Response is typically less than five seconds for oxygen and ten seconds for carbon dioxide.

RS232 output

RS232 output prints product description and sample data to 40 column thermal desktop printer for hard copy of calibration and test results. Prints test "Fail" according to user defined alarm settings.



Proprietary non-depleting sensors

Each sensor is designed to provide many years of trouble free service eliminating the need for regular replacement.

Flow Control

The AccuFlow transducer provides accurate flow control and replaces antiquated ball type flow meters. Flow is internally monitored to ensure trouble free performance and a warning displayed should the flow become obstructed.

Display hold

Locks most recent high or low concentration value. Bright, large character display is easy to read in any lighting condition. Status lights indicate mode of operation.

One-Touch calibration

With a single button the instrument self calibrates in just 60 seconds using ambient air.

Samples injected directly

Headspace samples can be injected directly into the instrument when automated sampling is not practical.



Sample wand

The robust sample wand is designed to accept standard luer accessories and includes easily replaced needles and particulate filters. A convenient sample wand holder prevents needle contamination and enhances safety when the analyser is not in use.

Software

User friendly software parameters are easy to enter and can be secured against accidental change.



Automated sampling

Automated package sampling is easy. Measurement duration is user selectable which provides great flexibility for a large variety of products. Using the sample wand, insert the sampling needle into the package and press test. The instrument does the rest; extracting the sample, analysing sensor output and holding the results for viewing on the bright autoranging display.

Accessories

The can piercing station is perfect for rigid packaging and has proven to be stable and reliable in hundreds of demanding applications.



Can Piercing Station

Principle of operation

Oxygen

The oxygen detector utilises a high purity, stabilised zirconia ceramic and platinum sensor maintained within a high temperature environment. The sensor produces a log output which is converted and linearised to yield a digital readout directly proportional to a sample's oxygen content.

Carbon Dioxide

The non-depleting sensor integrates a solid state infrared (IR) source and detector into a single high performance assembly. Narrow wavelength filtering and strict temperature compensation ensure that only carbon dioxide is measured, even within complex gas mixtures. Precise signal conditioning and microprocessor control provide direct digital indication of CO₂ concentrations.

Technical Specifications

Oxygen Range	Autoranging from 0.001 to 100% (models GS6500 & GS6600)
Carbon Dioxide Range	Autoranging from 0.1 to 100% (models GS6600 & GS6700)
Displays	Bright 4 Digit LED, Display Hold, Analyse, and Calibration Status Indicators
Response Time	<5 seconds (O ₂), <10 seconds (CO ₂)
Accuracy: Oxygen	10 to 100%, 0.2% absolute (max 2% of reading) and ±1 on the last digit. 1 to 9.99%, 0.02% absolute (max 2% of reading) and ±1 on the last digit. 0 to 0.999%, 0.005 % absolute and ±1 on the last digit.
Accuracy CO2	±2% FSD
Ambient Temperature	+5 to +40°C (41 to 104°F)
Internal Sample Pump	Processor Controlled Diaphragm Type
Syringe Injection	Via Male Luer Syringe Adaptor (option)
Enclosure	Epoxy Coated Steel, Polycarbonate Operators Panel
Dimensions	340 W x 290 D x 145 H mm (13.5 W x 11.5 D x 5.7 H inches)
Weight	4 kg (9 lbs)

Options

Computer Interface	RS232 Port for printer, USB for computer.
Rigid Pack Sampler	Extracts samples from cans, jars, bottles, etc. Includes all necessary fittings and supplies.
Compact Printer	40 Column Thermal Desktop Printer

Power Requirements

Mains power	Universal, 90-264 VAC. 100 Watt maximum
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Systech Illinois have 30 years experience of providing analysis solutions for a wide range of industries. From our manufacturing plants in the UK and U.S. we produce gas analysers for industrial process industries, headspace analysers for monitoring gas flushing of food products, and our range of permeation analysers.

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